

Union County

1st, 3rd, and 5th Grade Students Body Mass Index (BMI) Report



2012-2013



Preface

According to the CDC, childhood obesity has more than tripled in the past 30 years and is a precursor to adulthood obesity. Because of the seriousness of this issue, Healthy People 2020 set the reduction of childhood obesity as one of its objectives. Research indicates that over half of all new obesity diagnoses in some population subgroups are being attributed to children under the age of 18. The CDC reports that obesity is a major risk factor for many severe diseases and conditions, including cardiovascular disease, certain types of cancer, and type-2 diabetes. In addition to these life-long repercussions, childhood obesity is associated with lower life expectancies and increased health care costs.

The South Carolina Joint Citizens and Legislative Committee on Children (JCLCC) was recently created by statute to research issues regarding the children of South Carolina, and to offer policy and legislative recommendations to the Governor and Legislature. The Committee recently identified 4 major focus areas which require serious consideration and action. Childhood Obesity is prominently featured as one of those areas. In their 2012 Annual Report, the JCLCC recommends that state- and community-based efforts be implemented to improve children's nutrition and increase physical activity so as to stimulate healthy behaviors and lifestyles for our children.

In line with national and state statistics, Union County is also severely impacted by a childhood obesity epidemic. The Union County School District Body Mass Index (BMI) project is the result of a collaborative effort between the Union County School District and DHEC. The collection of BMI is for the purpose of program evaluation, not health screening. Access to this data will help school personnel in creating programs that ensure a healthy environment where it is easy for students to make smart choices regarding eating and physical activity. The data will become part of the information that participating schools can use to evaluate the success of their efforts.

Measurements were obtained from children attending Union County public schools in the 1st, 3rd and 5th grades. This vital assessment would not be possible without the cooperation and dedication of the Union County School System. DHEC sincerely appreciates their commitment to this important project, and they are to be commended for taking a major step in a community-wide effort to address the problem of childhood obesity.



Body Mass Index (BMI) - 1st, 3rd and 5th Grade Students Union County, South Carolina

Introduction

The rising rate of childhood obesity¹ is a major public health threat for our children. Currently one-third (33.6%) of American children and adolescents are either obese or at risk of becoming obese.² In order to assess the healthy weight status of students in Union County, body mass index (BMI) data was collected during the 2012-2013 school year. The purpose of this report is to highlight the percent of obese or overweight 1st, 3rd and 5th grade students in Union County, South Carolina.

Methodology

Body Mass Index (BMI) is a number calculated from a person's weight and height. BMI provides a reliable indicator of body fatness for most people and is used to screen for weight categories that may lead to health problems.

BMI is calculated by multiplying a common conversion factor of 703 by weight in pounds (lb) divided by height in inches (in) squared. In other words,

$$BMI = 703 \times (Weight \text{ (lbs)} \div Height^2 \text{ (in}^2\text{)})$$

The weight status of children was determined by using growth charts developed by the Centers for Disease Control and Prevention. The growth charts show the distribution of BMI across a range of ages for a reference population. Children were classified as obese if their BMI-for-age was in the 95th percentile or above. Children were classified as overweight if their BMI-for-age was between the 85th and 94th percentile.

Students' height and weight were measured during the School Year of 2012-2013.

Demographic and health data were provided by the public school district's Physical Education staff.

Note:

93% of 1st graders were measured (322 of 345)

94% of 3rd graders were measured (295 of 313)

96% of 5th graders were measured (300 of 312)

¹-Obesity is defined as a child who has a body mass index (BMI) for age at or above the sex-specific 95th percentile of the BMI charts developed by the Centers for Disease Control and Prevention (CDC) in 2000. *At risk for obesity* is defined as a child with a BMI for age at or above the sex-specific 85th percentile but less than the 95th percentile of the CDC BMI charts. In most children, a BMI level at or above the 95th percentile indicates elevated body fat that reflects the presence or risk of related chronic diseases.

²-Save the Children. *Change Program: Creating Healthy, Active, and Nurturing Growing-up Environments*. June 2007.
www.savethechildren.org/newsroom/2007/rural-childhood-obesity

Key Findings

- 37.6% of 1st Graders were obese or overweight.
- 47.4% of 3rd Graders were obese or overweight.
- 50.0% of 5th Graders were obese or overweight.
- Differences/disparities exist between White and African-American children.
- Differences/disparities exist between male and female genders.

Conclusions

- Childhood obesity is a severe problem in Union County.
- Efforts should continue to monitor BMI in children.
- The community should be made aware of the situation in order to implement change.

Actions for Prevention of Childhood Obesity³

Immediate actions involving stakeholders from multiple settings are needed to address the epidemic.

Local Governments

- Expand and promote opportunities for active living and healthy eating in the community through changes to ordinances, policies, capital improvement programs, and other planning practices.

Communities

- Provide opportunities for healthy eating and physical activity in existing and new community programs.
- Support legislation and other local and state-level action promoting healthy eating and physical activity.
- Seek resources in order to help implement and/or maintain programs to promote and support healthy eating and physical activity in the community.

Schools

- Implement school wellness policies that promote healthy eating and active living for both students and teachers.
- Improve the nutritional quality of foods and beverages served and sold in schools and as part of school-related activities.
- Routinely track BMI and offer appropriate counseling and guidance to children and their families.

Families

- Implement interventions to reduce the amount of time children are sedentary such as while viewing television, playing video games and using a computer.
- Monitor and discuss BMI information with family health care providers.
- Engage in and promote healthy eating and active lifestyles together as families.

³- Institute of Medicine. *Preventing Childhood Obesity: Health in the Balance*. Report Brief, September 2004.
<http://iom.edu/report.asp?id=22596>

1st Grade Report

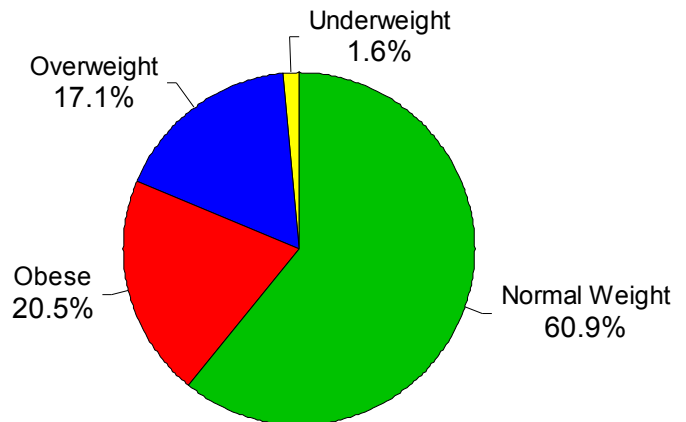


Weight status of 1st graders:

- 1.6% were underweight.
- 60.9% were in the normal weight range.
- 17.1% were overweight.
- 20.5% were obese.

Percent of children by weight status

Union County First Grade - 322 Students



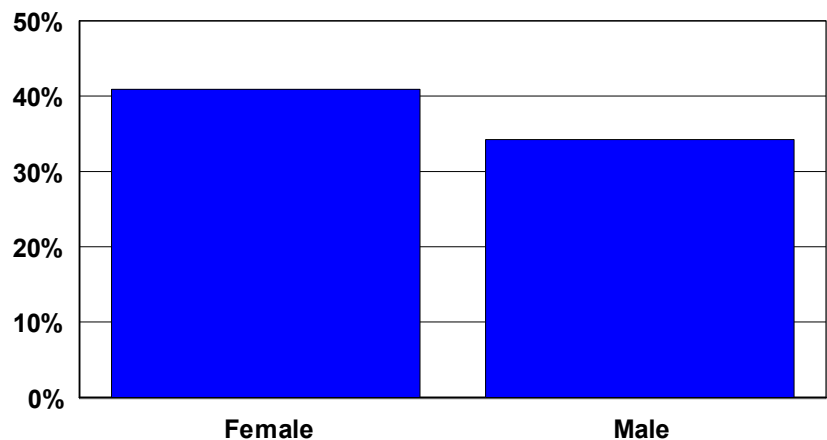
Underweight: BMI-for-age < 5th percentile
Normal: BMI-for-age 5th-<85th percentile
Overweight: BMI-for-age 85th-<95th percentile
Obese: BMI-for-age ≥ 95th percentile

Disparities in Obesity/Overweight by Gender:

- Females were more likely than males to be obese or overweight.

Percent of children who were obese or overweight by gender

Union County - First Grade

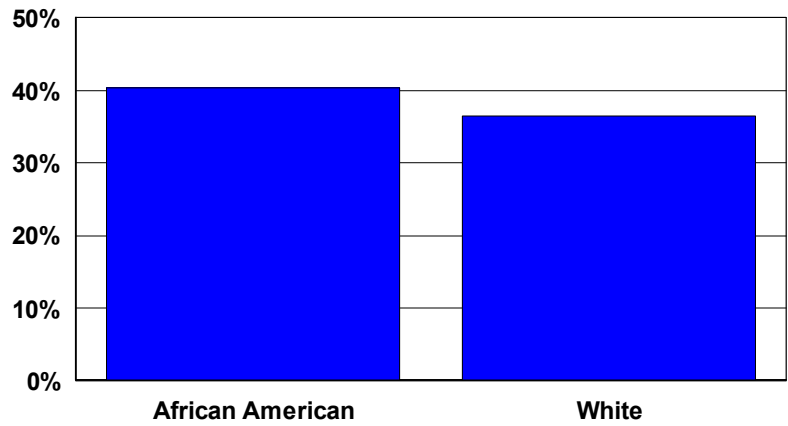


Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age ≥ 95th percentile

Disparities in Obesity/
Overweight by Race/
Ethnicity

- African-American children were more likely than White children to be obese or overweight.

Percent of children who were obese or overweight by Race/Ethnicity
Union County - First Grade



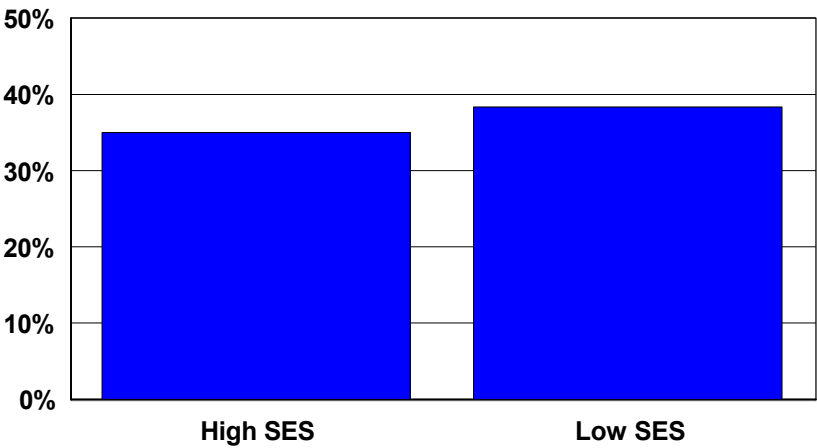
Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age ≥ 95th percentile
*Some categories have small numbers and should be used with caution.

For statistical reasons, race/ethnic groups comprising <4% of the data were not included. These groups/individuals are included in all other parts of the report.

Disparities in Obesity/
Overweight by Socioeconomic
Status (SES)

- Children from low SES households were more likely than high SES households to be obese or overweight.

Percent of children who were obese or overweight by SES
Union County - First Grade



Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age ≥ 95th percentile
† Based on Free and Reduced School Lunch Program eligibility

3rd Grade Report

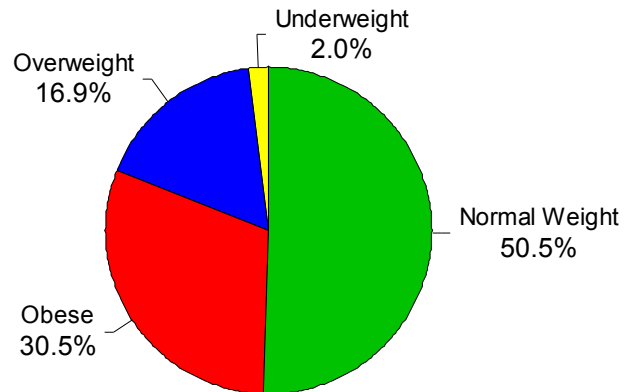


Weight status of 3rd graders:

- 2.0% were underweight.
- 50.5% were in the normal weight range.
- 16.9% were overweight.
- 30.5% were obese.

Percent of children by weight status

Union County Third Grade - 295 Students



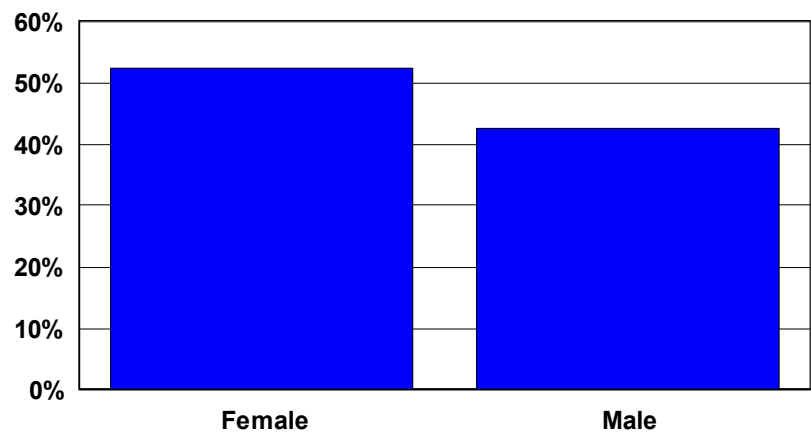
Underweight: BMI-for-age < 5th percentile
Normal: BMI-for-age 5th-<85th percentile
Overweight: BMI-for-age 85th-<95th percentile
Obese: BMI-for-age ≥ 95th percentile

Disparities in Obesity/Overweight by Gender

- Females were more likely than males to be obese or overweight.

Percent of children who were obese or overweight by gender

Union County - Third Grade

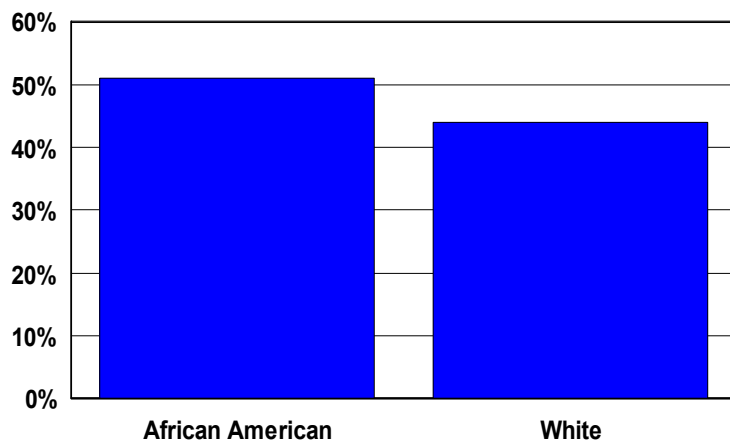


Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age ≥ 95th percentile

Disparities in Obesity/ Overweight by Race/Ethnicity

- African-American children were more likely than White children to be obese or overweight.

Percent of children who were obese or overweight by Race/Ethnicity
Union County - Third Grade



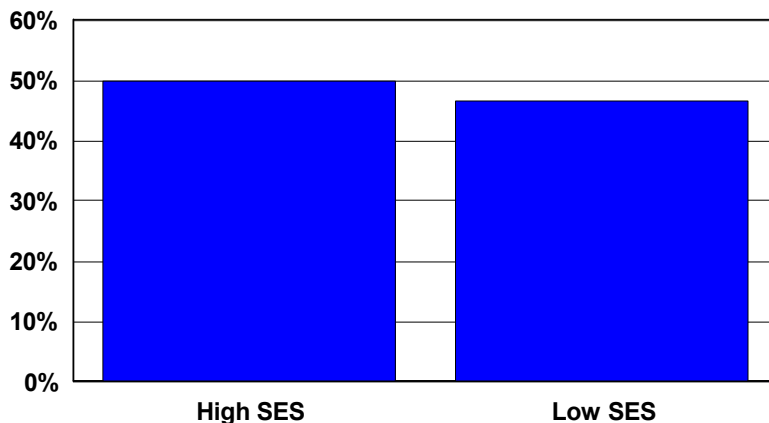
Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age \geq 95th percentile
*Some categories have small numbers and should be used with caution.

For statistical reasons, race/ethnic groups comprising <4% of the data were not included. These groups/individuals are included in all other parts of the report.

Disparities in Obesity/ Overweight by Socioeconomic Status (SES)

- Children from high SES households were more likely than low SES households to be obese or overweight.

Percent of children who were obese or overweight by SES
Union County - Third Grade



Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age \geq 95th percentile
† Based on Free and Reduced School Lunch Program eligibility

5th Grade Report

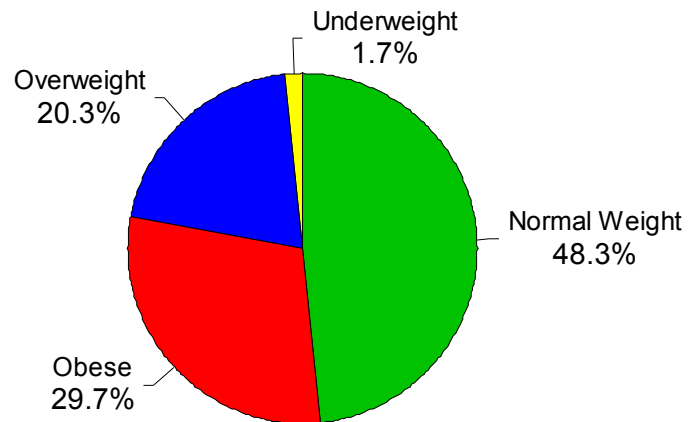


Percent of children by weight status

Union County Fifth Grade - 300 Students

Weight status of 5th graders:

- 1.7% were underweight.
- 48.3% were in the normal weight range.
- 20.3% were overweight.
- 29.7% were obese.



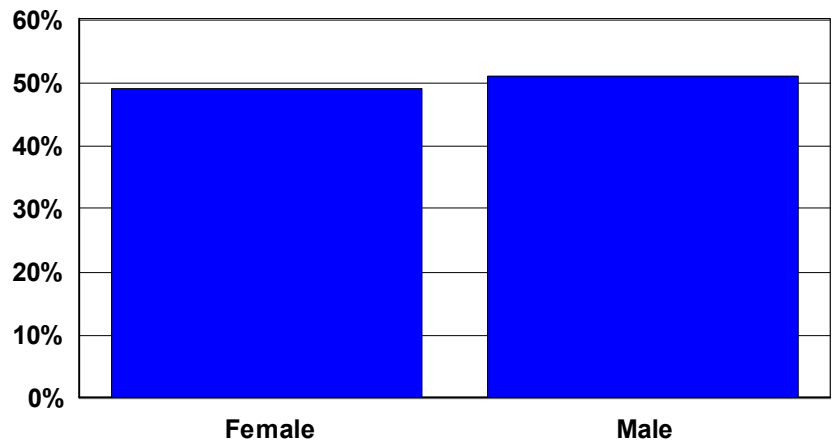
Underweight: BMI-for-age < 5th percentile
Normal: BMI-for-age 5th-<85th percentile
Overweight: BMI-for-age 85th-<95th percentile
Obese: BMI-for-age ≥ 95th percentile

Percent of children who were obese or overweight by gender

Union County - Fifth Grade

Disparities in Obesity/Overweight by Gender

- Males were slightly more likely than females to be obese or overweight.

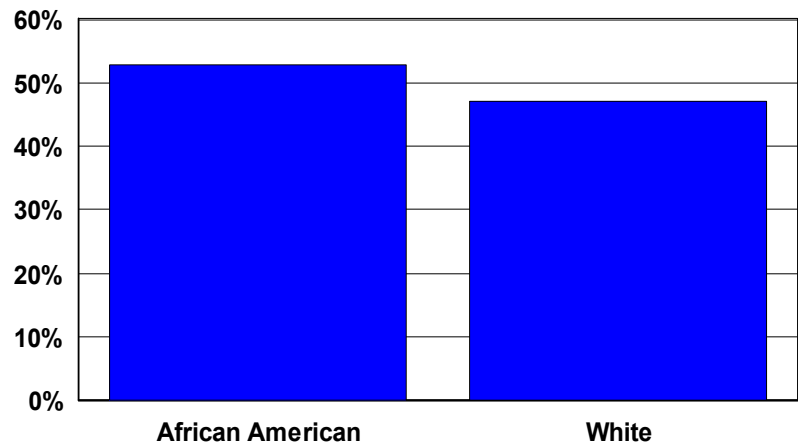


Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age ≥ 95th percentile
†

Disparities in Obesity/ Overweight by Race/Ethnicity

- African-American children were more likely than White children to be obese or overweight.

Percent of children who were obese or overweight by Race/Ethnicity
Union County - Fifth Grade



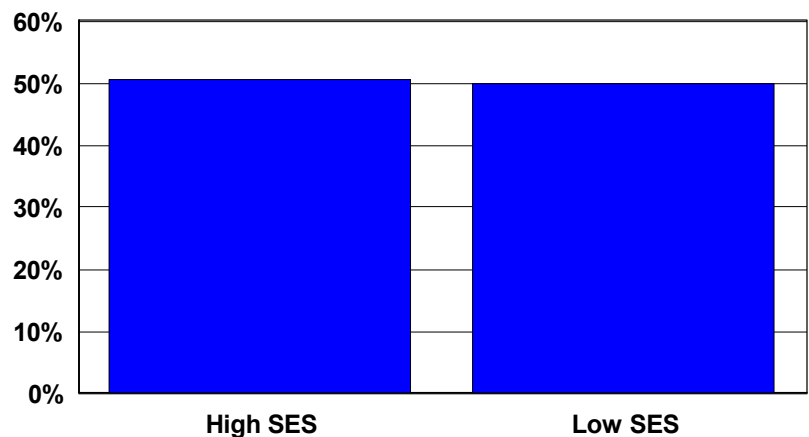
Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age \geq 95th percentile
*Some categories have small numbers and should be used with caution.

For statistical reasons, race/ethnic groups comprising <4% of the data were not included. These groups/individuals are included in all other parts of the report.

Disparities in Obesity/ Overweight by Socioeconomic Status (SES)

- There is little difference in obesity or overweight rates between children from high SES households and low SES households

Percent of children who were obese or overweight by SES
Union County - Fifth Grade



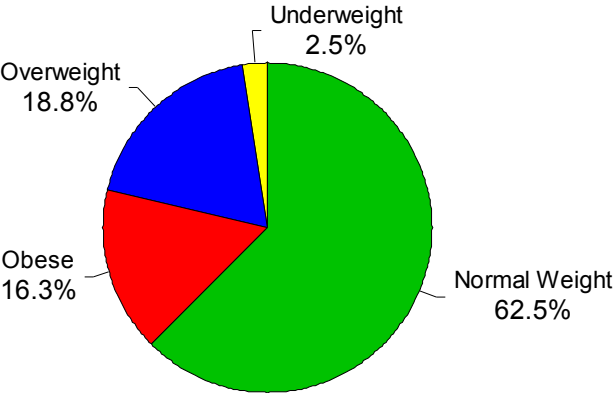
Overweight: BMI-for-age 85th-<95th percentile Obese: BMI-for-age \geq 95th percentile
† Based on Free and Reduced School Lunch Program eligibility

School Reports by Grade Level



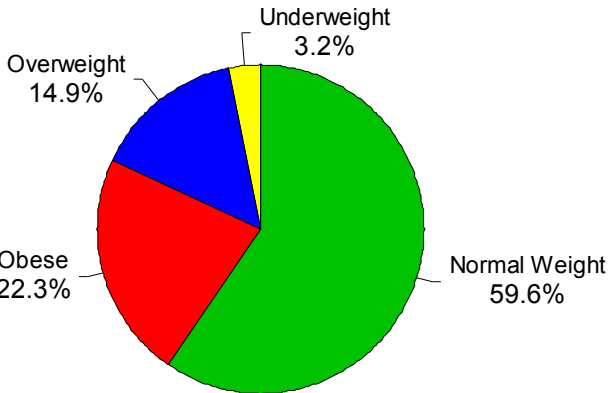
Percent of children by weight status

Buffalo Elementary- First Grade - 80 Students



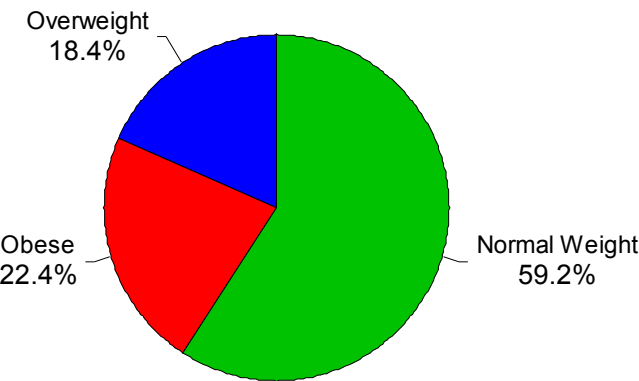
Percent of children by weight status

Foster Park Elementary- First Grade - 94 Students



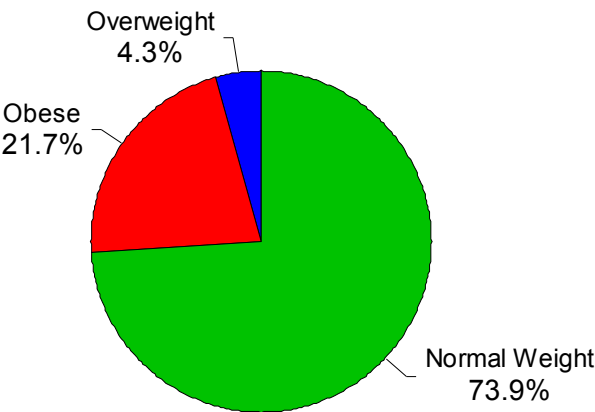
Percent of children by weight status

Jonesville Elementary- First Grade - 49 Students



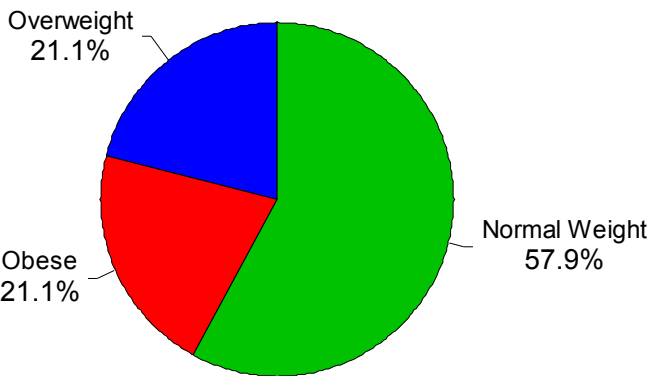
Percent of children by weight status

Lockhart Elementary- First Grade - 23 Students

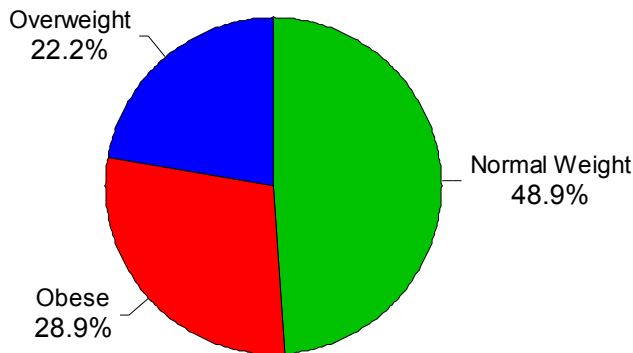


Percent of children by weight status

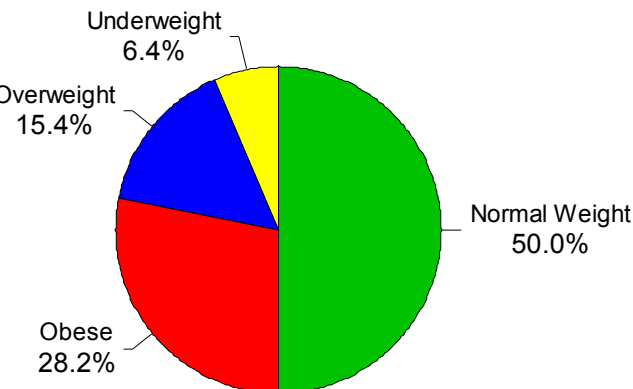
Monarch Elementary- First Grade - 76 Students



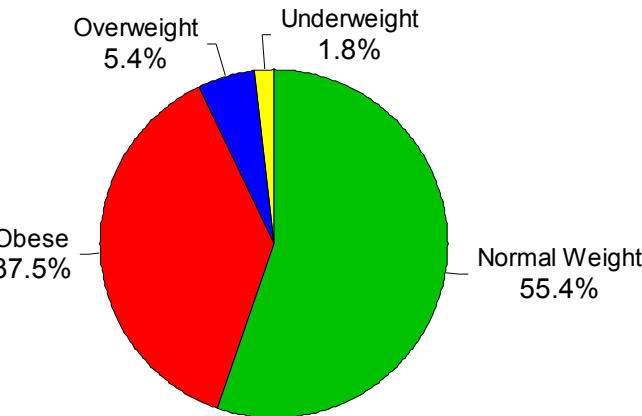
Percent of children by weight status
Buffalo Elementary- Third Grade - 90 Students



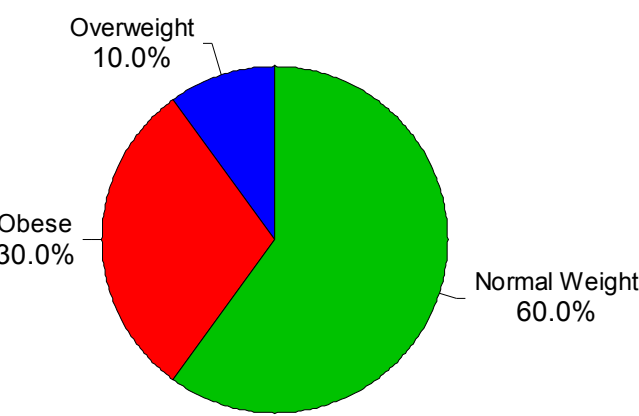
Percent of children by weight status
Foster Park Elementary- Third Grade - 78 Students



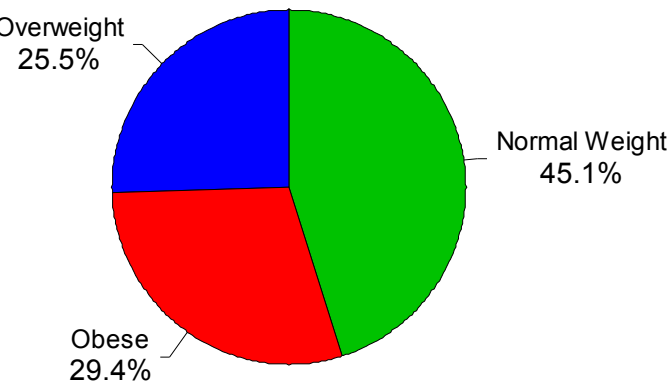
Percent of children by weight status
Jonesville Elementary- Third Grade - 56 Students



Percent of children by weight status
Lockhart Elementary- Third Grade - 20 Students

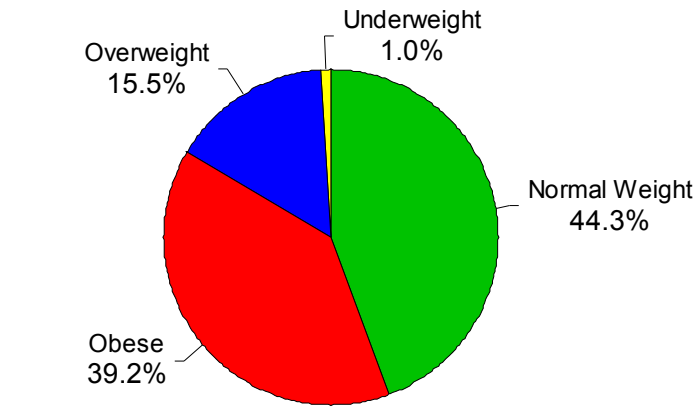


Percent of children by weight status
Monarch Elementary- Third Grade - 51 Students



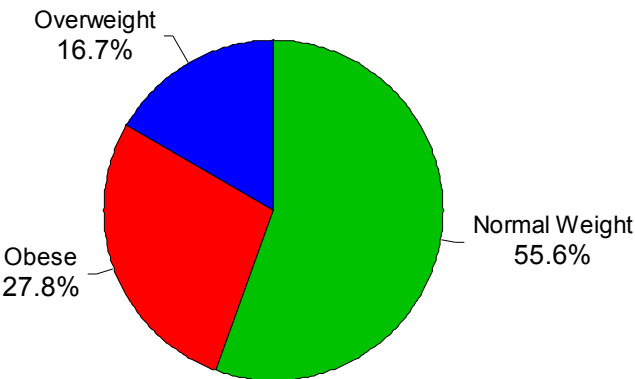
Percent of children by weight status

Buffalo Elementary- Fifth Grade - 97 Students



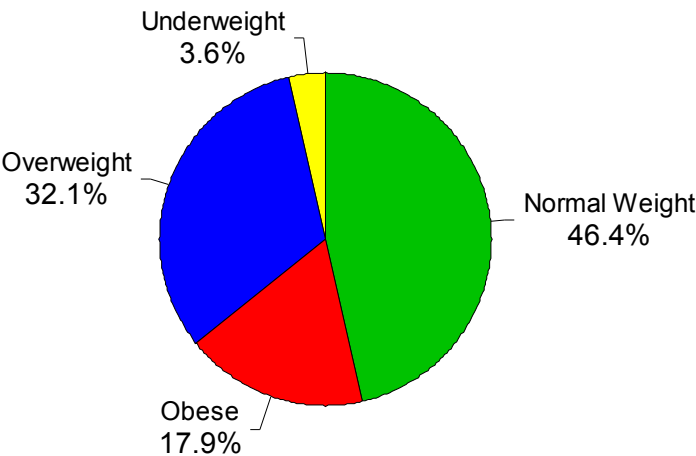
Percent of children by weight status

Foster Park Elementary- Fifth Grade - 54 Students



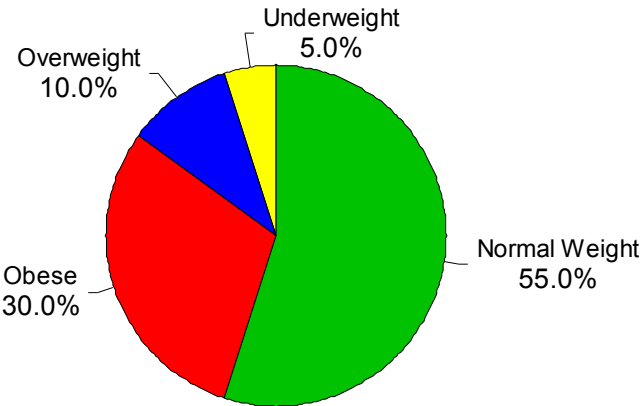
Percent of children by weight status

Jonesville Elementary- Fifth Grade - 56 Students



Percent of children by weight status

Lockhart Elementary- Fifth Grade - 20 Students



Percent of children by weight status

Monarch Elementary- Fifth Grade - 73 Students

